



## **The RQM<sup>®</sup>: Redefining Value in Peer Review**

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# THE RAYUS RADIOLOGY QUALITY INSTITUTE

## What is it?

The RAYUS Radiology Quality Institute is a non-profit (501c6) entity that is affiliated with and sponsored by RAYUS Radiology

## Primary Purpose

- Develop and advance the science and art of medicine and medical education
- Promote public health
- Provide continuous quality improvement, peer review, and mentoring to providers affiliated with RAYUS Radiology

## Governed by the Council of Medical Directors

- Made up of RAYUS Radiology market medical directors and/or leaders of partnering radiologist groups
- National Section Leaders are elected annually by the Council and have significant subspecialized expertise

## Chief Initiatives

- Development of appropriate use criteria as a CMS-qualified Provider Led Entity (PLE)
- Patient Reported Outcome Measures (PROM)
- Peer review through the Radiologist Quality and Mentoring (RQM<sup>®</sup>) program

# INTRODUCTION

- Industry peer review systems vary in effectiveness and may contain limitations of reactive case assignment, undefined time limits, or score-based approaches. These can lead to biased case selection and subjectivity.
- In contrast, a learning approach to peer review encourages best practice sharing.
- The purpose of this initiative was to develop an in-house alternative to traditional peer review, the Radiologist Quality & Mentoring program (RQM®).

have found peer scoring to be a nonproductive aspect of traditional peer review because it tends to foster defensiveness, be extremely subjective and unreliable while giving a false impression of accuracy, and distract from the true objectives of individual and organizational improvement.

“health care organizations should adopt policies and practices that promote a nonpunitive culture that values open discussion and feedback on diagnostic performance” (2,3). Notably, the

Published assessments of scoring-based radiology peer review indicate that the approach has not led to widespread performance improvement.

# METHODS – DEVELOPMENT & ADMINISTRATION

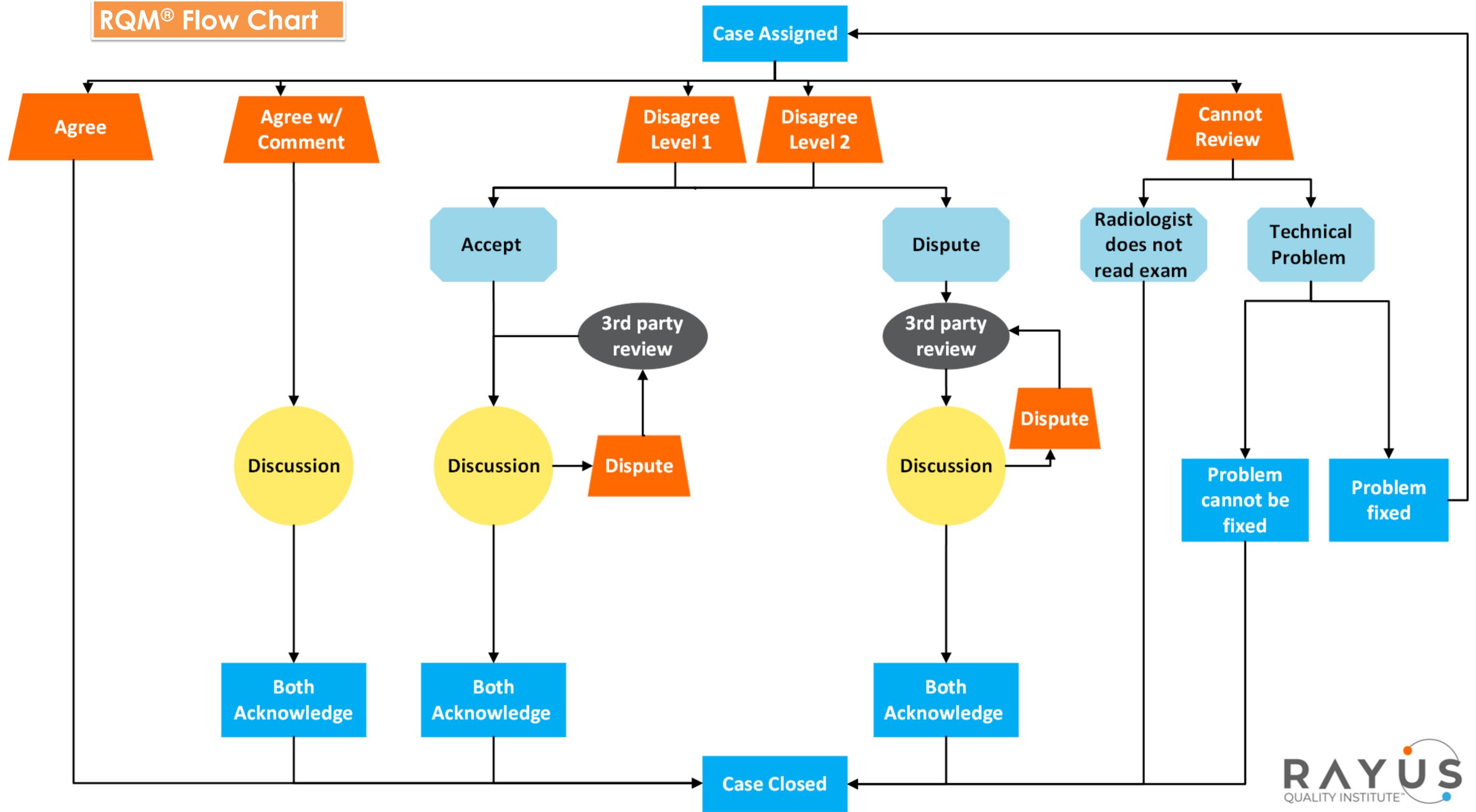
The RQM<sup>®</sup> is a web-based peer review program that is administered by the RAYUS Quality Institute and satisfies both CMS and ACR requirements. This program was designed and developed with value and ease of use for our affiliated providers as top priorities

- Confidential, legally protected, well documented process to improve patient care outcomes by reassessing each other's work
- Allows for anonymous discussion between providers
- Selects only current cases, organized by subspecialty for more meaningful mentorship

**Peer review assignments include only recent cases, with a focus on advanced imaging**

- Cases are randomly assigned via an algorithm of ~3% interpretation volume per subspecialty on a rotating monthly schedule
- Participants are given one month to complete cases from initial release date
- Program settings and administer oversight result in assignments that are personalized to individual providers
- Easy-to-follow worklist clearly shows all assignments and due dates
- Automatic email notifications are sent to participants when new cases are assigned, and for incomplete cases with upcoming deadlines

# RQM® Flow Chart



# RQM<sup>®</sup> Provider Feedback

The RQM<sup>®</sup> encourages conversation and sharing of best-practices amongst RAYUS' nationwide network of Radiologist partners through anonymization and the ability to respond back-and-forth

RQM <sup>®</sup> Case # 57742314		
Review Deadline : 11/16/2021	Chief Complaint: Mri Rt hip w/o: severe rt hip /groin px of 6-8 wks duration. Has been doing chiro carewith temporary effects. PI films demonstarte arthritis, Eval for labral tear or tendon/leg injury. os/julie.bjorklund  How Long: 6-8 wks  History of Trauma: none  History of Pertinent Surgery: none  Related Medical History:	Technologist Notes: + + 10/07/2021 02:10:13 PM - M West no prev
Patient Name:		
MRN:		
DOB: (Age at exam: 64y)		
Gender: Female		
Procedure: MR Hip Unilat WO		
Exam Date: 10/07/2021		
Accession #:		

Case History (7 entries)				
Action	By	Date	Conclusion/Response	Comments
Released for Review	Admin - Emilie Albee	10/18/2021 10:08 AM		Case Released
Initial Review	Reviewing Rad -	10/19/2021 3:54 PM	Agree - With Comment	Very nice and thorough report. I was just curious, when you see the signal in the right femoral head like that in the setting of osteoarthritis, do you think it has any significance or correlation to the amount of symptoms the patient has. Sometimes I struggle to know what it means and when to suggest developing stress reaction. Or just lump it together with the acetabulum and say reactive?
Follow Up	Admin - Angelina Gandini	10/20/2021 9:07 AM		See above question from reviewing radiologist.
Follow Up	Interpreting Rad -	10/27/2021 7:45 PM		Addendum: No Comment: In a case like this, where the edema is pretty mild, I will just lump it together with the OA, especially given the degree of chondromalacia seen here. When the edema seems out-of-proportion to the more generalized OA finding, I will start to invoke a superimposed stress reaction.
Follow Up	Admin - Angelina Gandini	10/28/2021 8:59 AM		See above response from original interpreter. Leave a comment to continue conversation or submit blank to remove from worklist.
Follow Up	Reviewing Rad -	10/28/2021 4:01 PM		Addendum: No Comment: Thank you for taking the time to respond. Much appreciated. Keep up the good work!

# METHODS - REPORTING

Data compiled via an in-house reporting system and can be accessed at any time

## REPORTS:

- Accuracy assessment
- Participation rate
- Volume by subspecialty
- Volume by modality
- Results by individual provider

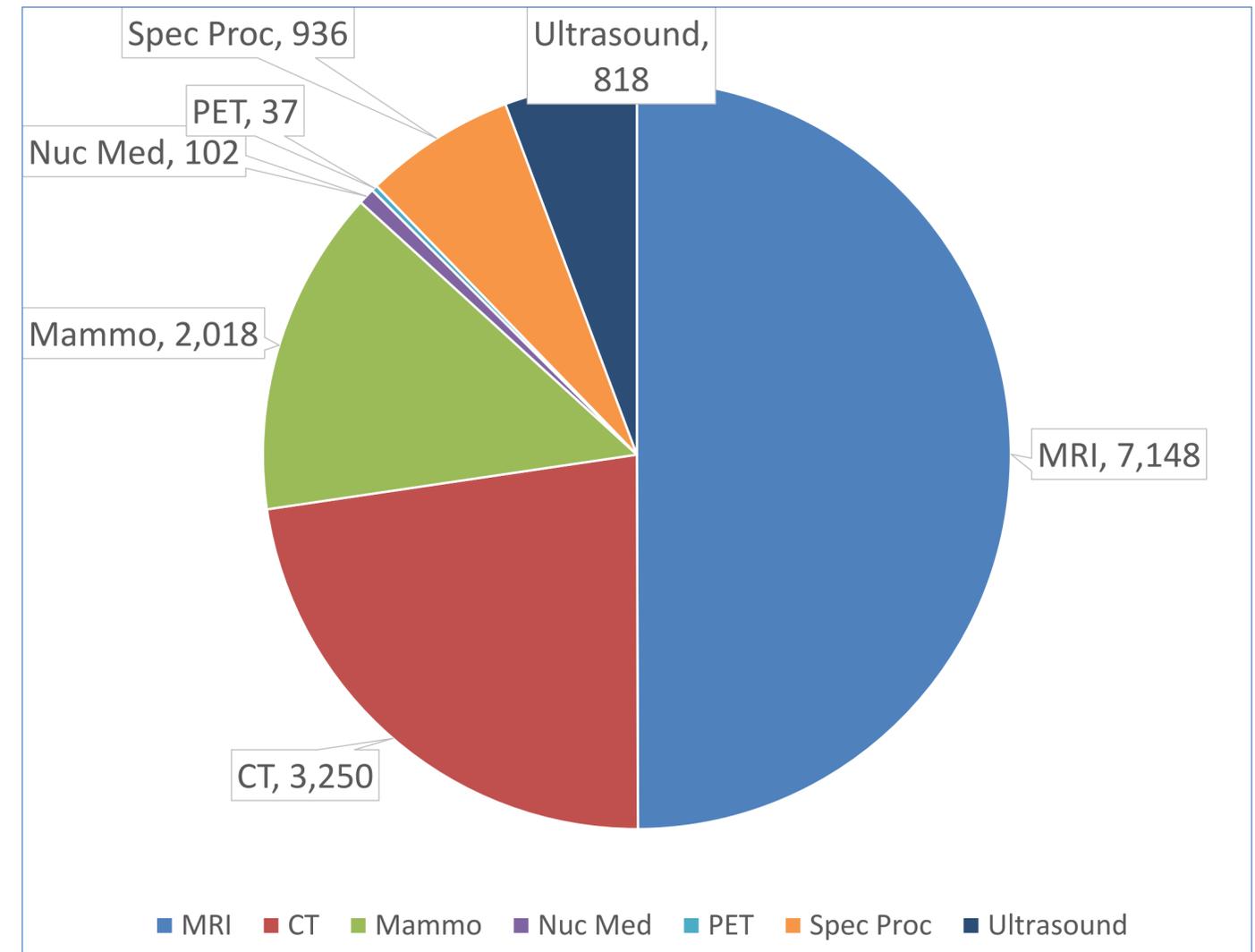
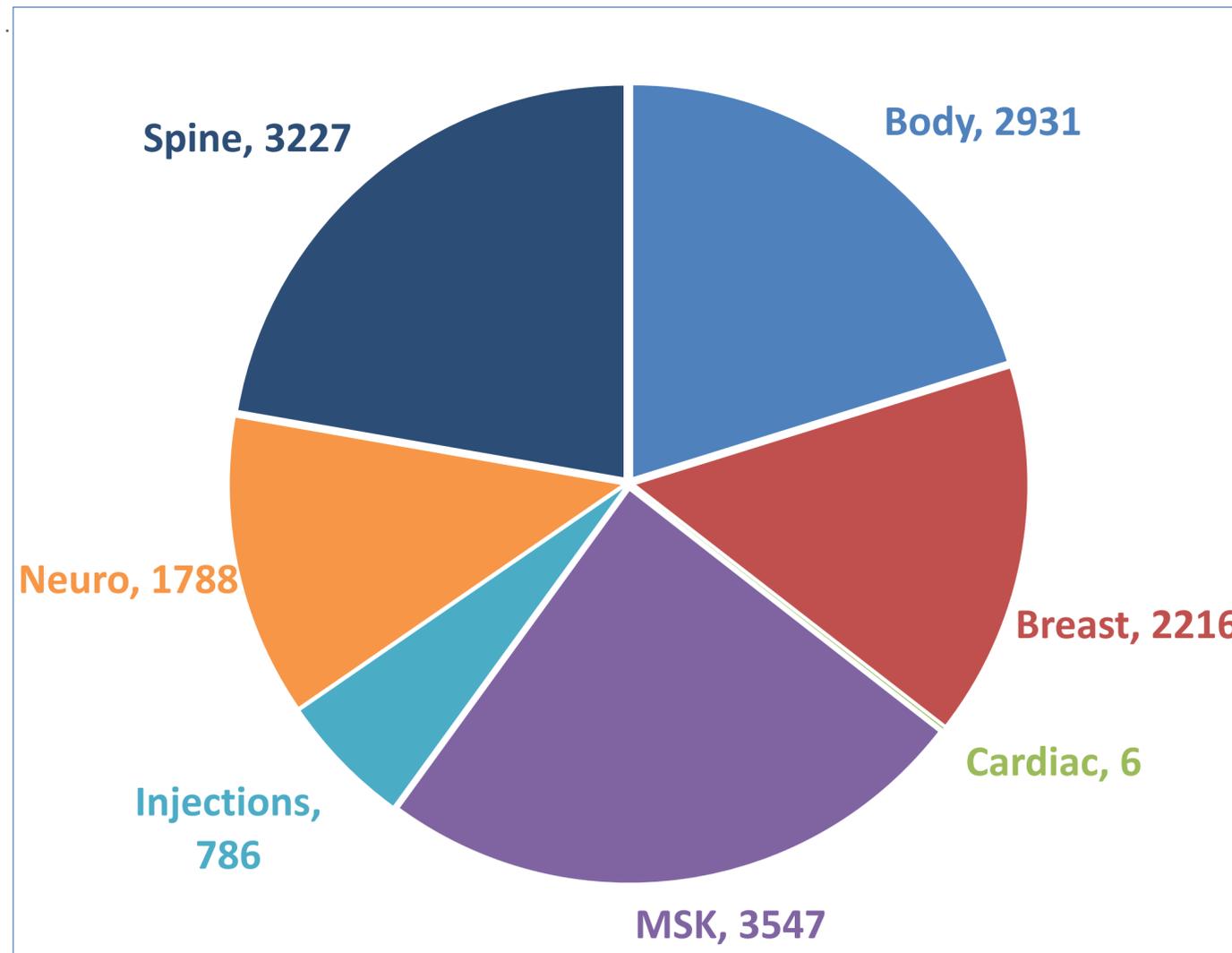
Formalized reporting occurs on a scheduled cycle

In general, reports blind the names of individual providers, preserving peer review protection and the purpose of a non-punitive learning environment.

Customizable reports harness the data that comes from the use of the program to demonstrate to payors that the continued pursuit of high-quality patient care is a top priority for our affiliated providers.

# RESULTS

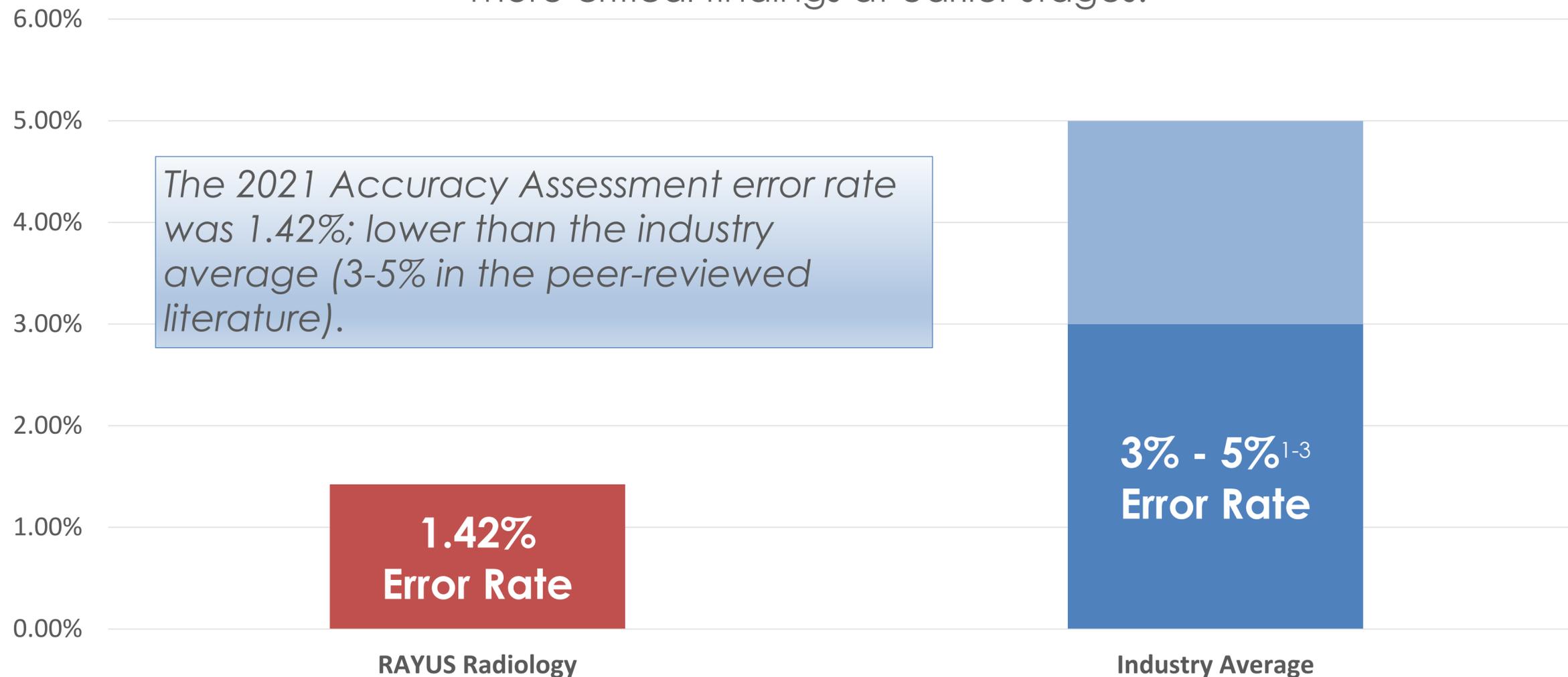
In 2021, a total of 240 reviewers from 32 independent groups completed 14,501 reviews, with an overall participation rate of 95%.



To date in 2022, reviews are up ~12% year-over-year from 2021, with an overall participation rate of 97%.

# RQM<sup>®</sup> Accuracy Assessment

The RQM<sup>®</sup> Accuracy Assessment revealed a below industry average error rate for participants, leading to more critical findings at earlier stages.



<sup>1</sup>Itri JN, Tappouni RR, McEachern RO, Pesch AJ, Patel SH. Fundamentals of Diagnostic Error in Imaging. Radiographics. 2018 Oct;38(6):1845-1865.

<sup>2</sup>Lee CS, Nagy PG, Weaver SJ, Newman-Toker DE. Cognitive and system factors contributing to diagnostic errors in radiology. AJR Am J Roentgenol. 2013 Sep;201(3):611-7.

<sup>3</sup>Brady AP. Error and discrepancy in radiology: inevitable or avoidable? Insights Imaging. 2017 Feb;8(1):171-182.

\*RQM<sup>®</sup> Conclusions report excludes radiology groups no longer participating in RQM<sup>®</sup> and special "non-routine" review cases